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EXAMINER	
JOHANNSEN, DIANA B	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/932,122	BAKER, TONY	
	Examiner	Art Unit	
	Diana B. Johannsen	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 August 2008 and 08 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *64-98* is/are pending in the application.

4a) Of the above claim(s) *71-73 and 86-88* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *64-70,74-85 and 89-98* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

FINAL ACTION

1. This action is responsive to the Amendment and Response filed August 19, 2008, and the supplemental Response including terminal disclaimers filed December 8, 2008. Claims 71-73 and 86-88 remain withdrawn. Claims 64, 67, 70, 79 and 82 have been amended and claims 97-98 have been added. Claims 64-70, 74-85, and 89-98 are now under consideration. Any rejections and/or objections not reiterated in this action have been withdrawn. With regard to the remaining rejections set forth below, Applicant's amendments and arguments have been thoroughly reviewed, but are not persuasive for the reasons that follow. **This action is FINAL.**

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

3. Claims 71-73 and 86-88 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 22, 2007.

Terminal Disclaimers

4. The terminal disclaimers filed on December 8, 2008 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patents granted on application nos. 11/686,169, 12/048,961, and 11/774,985 have been reviewed and are accepted. The terminal disclaimers have been recorded.

Claim Rejections - 35 USC § 112, second paragraph

The following are new grounds of rejection necessitated by applicant's amendments:

5. Claims 64-70 and 74-78 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 64-66 are indefinite because it is unclear how the recited method steps of contacting a test sample with a reagent and storing the sample related to the stated objective of "suppressing the interference of a masking agent…..on a molecular assay of a nucleic acid-containing test sample." The claims have been amended such that there is no apparent relationship between the method steps and the claim preamble. It is not clear how the contacting and storing steps relate to and achieve "suppressing the interference of a masking agent".

Claims 67-70 and 74-78 are indefinite because it is unclear how the recited method steps of contacting a test sample with a reagent and storing the sample related to the stated objective of "suppressing the interference of a masking agent…..on a molecular assay of a nucleic acid-containing test sample." The claims have been amended such that there is no apparent relationship between the method steps and the claim preamble. It is not clear how the contacting and storing steps relate to and achieve "suppressing the interference of a masking agent".

Claim Rejections - 35 USC § 112, first paragraph

The following are new grounds of rejection necessitated by applicant's amendments:

6. Claims 64-70, 74-85, and 89-98 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. **This is a new matter rejection**.

Independent claims 64, 67, 79, and 82 have been amended to include a step of "storing" a sample "at a temperature of from about 4°C to about 37 °C for a time of up to about 7 days," and new claims 97-98 also include such a limitation. The response does not identify where in the specification support for this limitation is believed to be found, but does indicate that support for new claims 97-98 is located at least at pages 3-6 and 10-19. A review of the instant specification (including pages 3-6 and 10-19 in particular) reveals the disclosure of specific conditions falling within the recited range (e.g., storage at room temperature [page 18, lines 21-22]; seven days at 4 °C [page 11, line 30]), as well as an example outside this range (20 °F for 48 hours [page 12, line 5]). However, the specification does not provide basis for the limitation "storing... at a temperature of from about 4°C to about 37 °C for a time of up to about 7 days." Further, none of the parent applications of the instant application appears to support this new limitation. Accordingly, applicant's amendment introduces new matter.

7. Claims 64-70, 74-85, and 89-96 remain rejected, and new claims 97-98 are now rejected, under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for methods employing divalent metal chelators in combination with a chelator enhancing component selected from lithium chloride, sodium perchlorate, sodium thiocyanate, and combinations thereof, does not reasonably provide enablement for methods employing in which the "chelator enhancing component" is sodium salicylate. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims, for the reasons given in the prior Office action of May 19, 2008. **It is noted that applicant's amendment adding new claims 97-98 necessitated the inclusion of those claims in this rejection.** Those claims are similarly drawn to methods in which a sample is contacted with a reagent to "suppress the interference" of a masking agent, wherein the "chelator enhancing component" may be sodium salicylate. Thus, the claims lack enablement for the same reasons given in the prior Office action.

It is first noted that applicant's amendments have **overcome the original rejection for lack of enablement in part**. Specifically, all of the claims are now limited to chelators that are divalent metal chelators; accordingly, this aspect of the rejection has been **withdrawn**.

As was originally discussed in the prior Office action of May 19, 2008, it is unpredictable as to whether one of skill in the art could use applicant's invention in a manner commensurate with the instant claims. The claims recite the "chelator

enhancing component" sodium salicylate. However, neither applicant's specification, nor the specifications of any of the applications from which the instant application claims priority, exemplify the use of the chelator enhancing component sodium salicylate, in either suppressing interference of any masking agent and/or improving signal response, as set forth in the instant claims. Rather, applicant's examples are limited to the use of combinations of divalent metal chelators (particularly, e.g., EDTA, EGTA, and BAPTA) and chelator enhancers lithium chloride, guanidine, sodium perchlorate, and sodium thiocyanate in improving assay results and suppressing interference of various masking agents (see, e.g., Examples 1-2, as well as Figures 6-9 and the descriptions thereof at pages 5-6). Lacking guidance from the specification, one of skill in the art may look to the teachings of the prior art for further guidance with regard to enablement of a claimed invention. In the instant case, the prior art as exemplified by Chung et al (Mol. Cells 6(1):108-111 [1996]) and Yang et al (US 5,514,551 [07 May 1996]) discloses the use of combinations of the divalent metal chelator EDTA and lithium chloride in various molecular assays (see rejections below). However, the prior art is silent with regard to methods of suppressing interference and/or improving signal response using sodium salicylate as a "chelator enhancing component". Thus, the prior art does not provide enabling guidance with regard to those aspects of the claimed invention that are unpredictable based on the lack of guidance provided in applicant's specification. Given the high skill level of one of ordinary skill in the relevant art, it is clearly within the ability of such an artisan to conduct further experimentation aimed at determining whether sodium salicylate functions in a manner similar to, e.g., lithium chloride when employed

in the combinations of the instant claims. However, the outcome of such experimentation is completely unpredictable. Thus, while the specification is enabling with respect to methods employing the chelator enhancers of the claims other than sodium salicylate, it would require undue experimentation to use applicant's invention commensurate with the instant claims.

The response traverses the rejection on the grounds that the use of sodium salicylate is described at page 3, lines 15-19, page 4, lines 6-10, and page 6, lines 29-30. The reply concludes that "the Specification more than adequately describes sodium salicylate as a chelator enhancing component and enables its use".

These arguments have been thoroughly considered but are not persuasive. The instant rejection was not, e.g., a new matter and/or written description rejection. It is acknowledged that the use of sodium salicylate as a "chelator enhancing component" is recited in the specification. However, the instant rejection stems from the fact that neither the teachings of the specification nor the teachings of the prior art establish that sodium salicylate can actually function as such a "chelator enhancing component" as is required by the claims. The fact that the compound is listed in the specification does not enable its use. As indicated in the rejection, neither the specification nor the prior art establish that this compound actually functions as required by the claims, and applicant has not provided any evidence or persuasive arguments to the contrary. Accordingly, this rejection is maintained.

Claim Rejections - 35 USC § 102

8. Claims 64-70, 75, and 77-78 remain rejected, and new claims 97-98 are now rejected, under 35 U.S.C. 102(b) as being anticipated by Yang et al (US 5,514,551 [07 May 1996]), for the reasons given below and in the prior Office action of May 19, 2008. **It is noted that applicant's amendments adding new claims 97-98, and adding the "storing" step to the remaining claims, have necessitated the new grounds of rejection included herein.**

It is again noted that this rejection applies to claims 64-66 to the extent that the claims are drawn to methods encompassed by the claims in which about 0.1M to 1.0M of a chelator enhancing component is contacted with the test sample in combination with other reagents, and in which a "reagent consisting of from about 0.01 M to about 0.1 M of a chelator" is also provided in combination with other reagents (as set forth at, e.g., page 3 of the specification). Such methods are broadly encompassed by the claims as presently written.

With regard to claims 64 and 67 and claims dependent therefrom, as well as new claims 97-98, Yang et al disclose a molecular assay for the detection of *C. trachomatis* rRNA comprising amplification followed by probe hybridization (see Example 1). The assay comprises a step of contacting a nucleic-acid containing test sample with a solution comprising 0.6M lithium chloride (LiCl) and 10 mM (i.e., 0.01M) of the chelator ethylenediaminetetracetic acid (EDTA) (see col 21, lines 3-8). Yang et al therefore disclose a contacting step meeting the requirements of the instant claims. Yang et al further disclose cooling the sample to room temperature prior to analysis (col 21, lines

11-12), and therefore teach a step of "storing" that is embraced by the claims. Particularly, it is noted that the specification does not provide any kind of limiting definition of the term storing (for example, there is no requirement that the sample be placed in a particular location or type of container). Further, the claim states that storing be "at a temperature of from about 4°C to about 37°C for a time of up to about 7 days". Thus, when the sample of Yang et al is at room temperature (i.e., approximately 20-25 °C, clearly within the claimed range), it is being "stored" in a manner encompassed by the language of the claims. Regarding the step of "performing the molecular assay on the test sample" in new claim 98, Yang et al also disclose further molecular analysis of the sample (col 21, lines 11-42). Additionally, while claim 98 recites a step of "suppressing," the actual actions encompassed by that step are the recited substeps of "contacting" and "storing", which are taught by the reference, as indicated above.

With regard to the intended use of suppressing the interference of a leukocyte esterase, it is noted that this recitation does not result in any manipulative difference between the claimed method and that of Yang et al, and thus is not accorded patentable weight (see MPEP 2111.02). Further, with regard to the recitation "thereby suppressing he interference of the masking agent on the molecular assay of the nucleic acid-containing test sample is suppressed" in new claim 97 and "performing the molecular assay…wherein the masking agent is suppressed" in claim 98, this recitation similarly does not result in any manipulative difference between the claimed invention and that of Yang et al, but rather recites a result that inherently occurs as a result of the recited method steps. (It is also noted that while the claims as written do not require any actual

manipulations involving the use of the elected masking agent leukocyte esterase, the teachings of the specification establish that it is an inherent feature of *C. trachomatis* containing samples that they include the leukocyte esterase (see Example 2)). Regarding dependent claims 65 and 68-69, it is again noted that Yang et al disclose the use of the chelator EDTA. With respect to claim 66, it is an inherent property of, e.g., the amplification and hybridization solutions taught by Yang et al that they are buffers. Regarding claim 70, it is again noted that the claims do not require any actual manipulations involving any leukocyte esterase, and further that the "contacting" with a reagent meeting the requirements of the claims would inherently achieve the suppression required thereby. Regarding claim 75, it is again noted that Yang et al disclose an RNA detection assay. Regarding claims 77-78, Yang et al further disclose embodiments of their invention in which amplification by PCR precedes the hybridization with an acridinium-ester labeled probe (see, e.g., Example 13).

With regard to the corresponding rejection set forth in the prior Office action of May 19, 2008, the response traverses the rejection on the following grounds.

a) First, the response cites MPEP 2112(IV), including *In re Robertson*, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) and *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BPAI 1990), arguing that inherency has not been established with respect to the Yang et al reference. The reply urges that "the Action has not met its burden-of-proof as it must provide rationale or evidence tending to show inherency." These arguments have been thoroughly considered but are not persuasive. First, it is noted that the rejection

relied on applicant's own specification (not on the Yang et al reference) as establishing inherency with regard to the presence of leukocyte esterase in *C. trachomatis* samples. Thus, the rejection did in fact include a rationale and evidence tending to show inherency, and one of ordinary skill would recognize this as an inherent feature of such samples. Further, MPEP 2112 also states that:

> "[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer." Atlas Powder Co. v. Ireco Inc., 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus the claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). >In In re Crish, 393 F.3d 1253, 1258, 73 USPQ2d 1364, 1368 (Fed. Cir. 2004), the court held that the claimed promoter sequence obtained by sequencing a prior art plasmid that was not previously sequenced was anticipated by the prior art plasmid which necessarily possessed the same DNA sequence as the claimed oligonucleotides. The court stated that "just as the discovery of properties of a known material does not make it novel, the identification and characterization of a prior art material also does not make it novel."

In the instant case, the fact that applicant's may have discovered that the prior art compositions and methods of Yang et al result in a previously unrecognized property of leukocyte esterase suppression does not render those compositions and methods "patentably new" to applicant. Additionally, it is again noted that the intended uses recited in the claims cannot be accorded patentable weight because they do not result in a manipulative difference between the claimed method and that of Yang et al (MPEP 2111.02).

b) The reply also argues that the reference does not teach the "storing" step of the claims. This step was added by the amendment of August 19, 2008, and is in fact taught by the reference, as indicated in the rejection set forth above.

c) Finally, the reply argues that "the Action has provided no reason or rationale why a masking agent may be present in Yang's sample," and "no reason or rationale how/why a 'purified C. trachomatis rRNA' sample may contain a masking agent. However, the claims as written do not in fact require the presence of such an agent in such a sample. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further, the rationale with respect to the presence of the agent in such a sample is the same inherency rationale noted above and in the rejection itself. Accordingly, these arguments are not persuasive.

The Yang et al reference teaches all the limitations recited in the instant claims, and therefore this rejection is maintained.

9. Claims 64-70, 74-76, 79-85, 89, and 93-94 remain rejected, and new claims 97-98 are now rejected, under 35 U.S.C. 102(b) as being anticipated by Chung et al (Mol. Cells 6(1):108-111 [1996]), for the reasons given below and in the prior Office action of May 19, 2008. **It is noted that applicant's amendments adding new claims 97-98, and adding the "storing" step to the remaining claims, have necessitated the new grounds of rejection included herein.**

It is again noted that this rejection applies to claims 64-66 and 79-81 to the extent that the claims are drawn to methods encompassed by the claims in which about 0.1M to 1.0M of a chelator enhancing component is contacted with the test sample in combination with other reagents, and in which the "reagent consisting of from about 0.01 M to about 0.1 M of a chelator" is also provided in combination with other reagents

(as set forth at, e.g., page 3 of the specification). Such methods are broadly encompassed by the claims as presently written.

With regard to claims 64 and 67 and claims dependent therefrom, as well as new claims 97-98, Chung et al disclose improved methods for isolating RNA from plant tissues comprising contacting pulverized plant tissues with an extraction buffer comprising 300 mM (i.e., 0.3M) LiCl and 10 mM (i.e., 0.01M) EDTA (see entire reference, particularly page 109, noting the contents of "Extraction buffer A"). Chung et al therefore disclose a contacting step meeting the requirements of the instant claims. Chung et al further disclose subsequent centrifugation of the sample for 15 minutes at 4°C (page 109, left column), and therefore teach a step of "storing" that is embraced by the claims. Particularly, it is noted that the specification does not provide any kind of limiting definition of the term storing (for example, there is no requirement that the sample be placed in a particular location or type of container). Further, the claim states that storing be "at a temperature of from about 4°C to about 37°C for a time of up to about 7 days". Thus, when the sample of Chung et al is at 4°C, it is being "stored" in a manner encompassed by the language of the claims.

With regard to the intended use of suppressing the interference of a leukocyte esterase, it is noted that this recitation does not result in any manipulative difference between the claimed method and that of Chung et al, and thus is not accorded patentable weight (see MPEP 2111.02). Further, with regard to the recitation "wherein the interference of the masking agent on the molecular assay of the nucleic acid-containing test sample is suppressed" in claim 97 and of "wherein the masking agent is

suppressed" in claim 98, these recitations similarly does not result in any manipulative difference between the claimed invention and that of Chung et al, but rather are recitations of results that inherently occurs as a result of the recited method steps. Additionally, while claim 98 recites a step of "suppressing," the actual actions encompassed by that step are the recited substeps of "contacting" and "storing", which are taught by the reference, as indicated above.

Regarding claims 79 and 82 and claims dependent therefrom, as well as new claim 98, Chung et al disclose the "contacting" and "storing" steps as noted above, and further disclose that these steps are followed by extraction of RNA (page 109, see "Procedure" description). Chung et al further disclose that isolated RNA was analyzed by spectrophotometry and agarose gel electrophoresis, and used in cDNA library construction and Northern blotting (see page 109, left column). Thus, Chung et al teach extracting and "conducting a molecular assay" steps meeting the requirements of the claims. With regard to the intended use of suppressing the interference of a leukocyte esterase, it is again noted that this recitation does not result in any manipulative difference between the "contacting" step of the claims and that of Chung et al. With regard to the recited intended use of "improving the signal response" of a molecular assay and the recitation "wherein the signal response of the molecular assay is improved relative to a molecular assay performed without the reagent," Chung et al disclose that their method employing buffer A improves the quality of isolated RNA relative to other methods, and improves the results of molecular assays (see entire reference, particularly pages 110-111).

Regarding dependent claims 65, 68-69, 80, and 83-84, it is again noted that Chung et al disclose the use of the chelator EDTA. With respect to claims 66 and 81, it is an inherent property of buffer A taught by Chung et al that it is a buffer. Regarding claims 70 and 85, it is again noted that the claims do not require any actual manipulations involving any leukocyte esterase, and further that the "contacting" with a reagent meeting the requirements of the claims would inherently achieve the suppression required thereby. With respect to claims 74 and 89, buffer A of Chung et al also includes 1.5% SDS (sodium dodecyl sulfate), meeting the requirements of the instant claims (see page 109, left column). Regarding claims 75 and 93, it is again noted that Chung et al disclose RNA isolation and detection. Regarding claims 76 and 94, it is an inherent property of the plant tissues employed by Chung et al that they comprise eukaryotic DNA. It is noted that claims 76 and 94 are further limiting of the contents of the sample being contacted, not of, e.g., the type of molecule extracted therefrom.

With regard to the corresponding rejection set forth in the prior Office action of May 19, 2008, the response traverses the rejection on the following grounds.

a) First, the response again cites MPEP 2112(IV), including *In re Robertson*, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) and *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BPAI 1990), arguing that inherency has similarly not been established with respect to the Chung et al reference. These arguments have been thoroughly considered but are not persuasive. MPEP 2112 also states that:

> "[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer." Atlas Powder Co. v. Ireco Inc., 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus the claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). >In In re Crish, 393 F.3d 1253, 1258, 73 USPQ2d 1364, 1368 (Fed. Cir. 2004), the court held that the claimed promoter sequence obtained by sequencing a prior art plasmid that was not previously sequenced was anticipated by the prior art plasmid which necessarily possessed the same DNA sequence as the claimed oligonucleotides. The court stated that "just as the discovery of properties of a known material does not make it novel, the identification and characterization of a prior art material also does not make it novel."

In the instant case, the fact that applicant's may have discovered that the prior art compositions and methods of Chung et al possess a previously unrecognized property does not render those compositions and methods "patentably new" to applicant. Because Chung et al teach reagents and steps meeting all the requirements of the claims, the claims are anticipated by Chung et al, regardless of whether the properties possessed by the compositions of Chung et al were or were not previously known. Additionally, it is again noted that the intended uses recited in the claims cannot be accorded patentable weight because they do not result in a manipulative difference between the claimed method and that of Chung et al (MPEP 2111.02).

b) The reply also argues that the reference does not teach the "storing" step of the claims. This step was added by the amendment of August 19, 2008, and is in fact taught by the reference, as indicated in the rejection set forth above.

c) It is also again noted the claims as written do not in fact require the presence of a masking agent/leukocyte esterase in the sample. Although the claims are interpreted in light of the specification, limitations from the specification are not read into

the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Accordingly, applicant's arguments are not persuasive.

The Chung et al reference teaches all the limitations recited in the instant claims, and therefore this rejection is maintained.

Claim Rejections – 35 USC § 103

9. Claims 77-78 and 95-96 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al (Mol. Cells 6(1):108-111 [1996]) in view of Yang et al (US 5,514,551 [07 May 1996]), for the reasons given below and in the prior Office action of May 19, 2008. **It is noted that applicant's amendments adding the "storing" step to instant claims 67 and 82 (from which the present claims depend) have necessitated the new grounds of rejection included herein.**

Regarding the invention of claims 77-78, Chung et al disclose improved methods for isolating RNA from plant tissues comprising contacting pulverized plant tissues with an extraction buffer comprising 300 mM (i.e., 0.3M) LiCl and 10 mM (i.e., 0.01M) EDTA (see entire reference, particularly page 109, noting the contents of "Extraction buffer A"). Chung et al therefore disclose a contacting step meeting the requirements of instant claim 67 (from which claims 77-78 depend). Chung et al further disclose subsequent centrifugation of the sample for 15 minutes at 4°C (page 109, left column), and therefore teach a step of "storing" that is embraced by the claims. Particularly, it is noted that the specification does not provide any kind of limiting definition of the term storing (for example, there is no requirement that the sample be placed in a particular location or type of container). Further, the claim states that storing be "at a temperature of from

about 4°C to about 37°C for a time of up to about 7 days". Thus, when the sample of Chung et al is at 4°C, it is being "stored" in a manner encompassed by the language of the claims.

With regard to the intended use of suppressing the interference of a leukocyte esterase, it is noted that this recitation does not result in any manipulative difference between the claimed method and that of the prior art, and thus is not accorded patentable weight (see MPEP 2111.02). Further, with regard to the recitation "wherein the interference of the masking agent on the molecular assay of the nucleic acid-containing test sample is suppressed," this recitation similarly does not result in any manipulative difference between the claimed invention and that of the prior art, but rather recites a result that inherently occurs as a result of the required method steps.

Regarding the invention of claims 95 and 96, Chung et al disclose the "contacting" and "storing" steps as noted above, and further disclose that these steps are followed by extraction of RNA (page 109, see "Procedure" description). Chung et al further disclose that isolated RNA was analyzed by spectrophotometry and agarose gel electrophoresis, and used in cDNA library construction and Northern blotting (see page 109, left column). Thus, Chung et al teach contacting, storing, extracting, and "conducting a molecular assay" steps meeting the requirements of the claims. With regard to the intended use of suppressing the interference of a leukocyte esterase, it is again noted that this recitation does not result in any manipulative difference between the method steps of the claims and that of the prior art. With regard to the recited intended use of "improving the signal response" of a molecular assay and the recitation

"wherein the signal response of the molecular assay is improved relative to a molecular assay performed without the reagent," Chung et al disclose that their method employing buffer A improves the quality of isolated RNA relative to other methods, and improves the results of molecular assays (see entire reference, particularly pages 110-111).

While Chung et al disclose several types of molecular assays that may be practiced on isolated RNA, including detection of RNA by Northern hybridization (see, e.g., page 111, left column), Chung et al do not teach an assay meeting the requirements of the instant claims. Yang et al disclose that when nucleic acids are present in insufficient quantities to permit direct detection by hybridization, such nucleic acids may be amplified by methods including PCR so as to provide sufficient target molecules for detection (see entire reference, particularly col 2, lines 33-67). In view of the teachings of Yang et al, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have modified the methods of Chung et al so as to have detected target RNA molecules by a combination of PCR amplification and hybridization rather than by Northern hybridization. An ordinary artisan would have been motivated to have made such a modification in any instance when a greater quantity of target sequence was required to achieve detection for the advantage of allowing the detection of a small quantity of target RNA to be achieved, as specifically suggested by the teachings of Yang et al.

With regard to the corresponding rejection set forth in the prior Office action of May 19, 2008, the response traverses the rejection on the following grounds.

a) The reply argues that inherency has not been established with regard to the Chung et al and Yang et al references for the reasons outlined previously. Those arguments are summarized above, and the responses to those arguments given above apply equally herein.

b) The reply also argues that the references do not teach the "storing" step of the claims. This step was added by the amendment of August 19, 2008, and is in fact taught by the reference, as indicated in the rejection set forth above.

c) Additionally, the response argues that the references fail to teach "suppressing the interference of a masking agent" including the elected leukocyte esterase. However, with regard to instant claims 77-78 (dependent from claim 67), it is again noted that the recited "suppressing" is merely an intended use; additionally, the claims as written do not in fact require the presence of a masking agent. The references suggest the performance of the steps required by the claims, and therefore render the invention as claimed obvious. Regarding claims 95-96 (dependent from claim 82), the references again suggest all the steps required by the claims, and again, there is no requirement for a sample actually including a masking agent. Thus, the references are sufficient to suggest the invention as claimed, for the reasons given.

10. With regard to applicant's general arguments pertaining to the criteria that must be met for an obviousness rejection, it is noted that the references suggest the claim invention for the reasons given above. It is particularly noted that the motivation to combine the references is the one stated in the original rejection, i.e., to obtain a greater quantity of target sequence as needed to allow the detection of a small quantity of target

RNA. Further, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

The combined references of Chung et al and Yang et al suggest all the limitations of the instant claims, and therefore this rejection is maintained.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diana B. Johannsen whose telephone number is 571/272-0744. The examiner can normally be reached on Monday and Thursday, 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached at 571/272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Diana B. Johannsen/
Primary Examiner, Art Unit 1634